

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/007284 A3

(51) International Patent Classification⁷: **G01N 13/00**,
A61K 49/18, B01J 13/02, A61K 9/51

(74) Agents: PAGET, Hugh et al.; Mewburn Ellis LLP, York
House, 23 Kingsway, London, Greater London WC2B 6HP
(GB).

(21) International Application Number:
PCT/GB2004/003103

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(22) International Filing Date: 16 July 2004 (16.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0316675.8 16 July 2003 (16.07.2003) GB
0330113.2 29 December 2003 (29.12.2003) GB

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

(71) Applicants (for all designated States except US): THE
UNIVERSITY OF READING [GB/GB]; P.O. Box 217,
Whiteknights, Reading, Berkshire RG6 6AH (GB). AS-
TRAZENECA AB [SE/SE]; S-151 85, S-Sodertalje (SE).
GAO, Xin [CN/GB]; c/o School of Chemistry, University
of Reading, Reading Berkshire RG6 6AD (GB).

Published:

— with international search report

(72) Inventors; and

(75) Inventors/Applicants (for US only): TSANG, Shik, Chi
[GB/GB]; c/o School of Chemistry, University of Read-
ing, Reading, Berkshire RG6 6AD (GB). TAM, Kin, Yip
[GB/GB]; c/o AstraZeneca, Mereside, Alderley Park, Mac-
clesfield, Cheshire SK10 4TG (GB).

(88) Date of publication of the international search report:
16 June 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITE NANOPARTICLES

(57) Abstract: The method of measuring the partition coefficient of a test molecule comprises incorporating the molecule in a composition of nanoparticles having a porous surface and a first solvent, wherein a second solvent has been absorbed into the porous surface, and said first solvent is immiscible with said second solvent, and then separating the nanoparticles and the first solvent. The amount of the molecule which remains in the first solvent is determined to enable calculation of the partition coefficient. The nanoparticles may have a magnetic core to allow easy separation.

WO 2005/007284 A3